17/12/2022

Printing Pages :1
Paper Code :MPC-101T B (SVSU:2022-23/R)

Enrollment No.													

M.Pharm
I^st^ Year (I^st^ Semester) Examination
SUB: Modern Pharmaceutical Analytical Techniques
(MPC101T/MPL101T/MPH101T)

[Time : 3:00 Hours] **[Max. Marks : 75]**

I Answer any **FIVE** **[3×5=15]**

1. Give principles of Ion exchange chromatography
2. Give Principles of IR spectroscopy
3. Factors affecting UV absorptions
4. What stands for HPLC
5. Define TMS
6. Define Stationary Phase

II. Answer any **FIVE** **[3×5=15]**

1. Write about Stretching vibrations
2. Explains Normal phase chromatography
3. Define Bathochromic shift
4. Give applications of HPLC
5. Define TLC
6. Gives IR detectors

III. Answer any **TWO** **[7.5×2=15]**

1. Give Principles of Gel chromatography
2. Give Principles of X-Ray diffractions
3. Write instrumentation of IR absorptions

IV. Answer any **TWO** **[7.5×2=15]**

1. Gives Principles of HPLC
2. Write about NMR spectroscopy
3. Write paper chromatography in detail

IV. Answer any **ONE** **[15×1=15]**

1. Explain Mass spectroscopy in details
2. Explains Principles, instrumentation and merit demerit of UV spectroscopy

20/12/2022

Printing Pages : 1

Paper Code :MPL-102T C (SVSU:2022-23/R)

Enrollment No.

M.PHARM (SPECIALIZATION)
I[ST] YEAR I ND SEMESTER EXAMINATION
ADVANCED PHARMACOLOGY – I, MPL 102T

[Time : 3:00 Hours] [Max. Marks : 75]

Q1. Answer Any Five Questions [3×5=15]

a) Define Bioavailability.

b) Define Partial Agonist and Inverse Agonist.

c) Write notes on cholinergic receptors.

d) Write notes on dopaminc.

e) Define Half life.

f) Write MOA of barbiturates.

Q2. Answer Any Five Questions [3×5=15]

a) What do you mean by Pharmacokinetics?

b) Write note on Anticoagulants.

c) Classify Antiepileptic Drugs.

d) Write notes on Serotonin.

e) Classify Anti-anxiety drugs.

f) Define diuretics.

Q3. Answer Any Two Questions [7.5×2=15]

a) Classify local anesthetics and write pharmacological actions and therapeutic uses?

b) Write notes on anti-depressants?

c) Write steps involved in Neurohumoral transmission?

Q4. Answer Any Two Questions [7.5×2=15]

a) Write classification of antihistaminic drugs with pharmacological actions.

b) Classify sympatholytic drugs with pharmacological Actions.

c) Write a note on types of receptors with special note on any one receptor class.

Q5. Answer Any One Question [15×1=15]

a) Discuss drug absorption and distribution in detail.

b) Classify Antihypertensive drugs with pharmacological actions of any one class.

22/12/2022

Printing Pages : 1

Paper Code :MPL-103T C (SVSU:2022-23/R)

Enrollment No.

M.PHARM

First Year (I[st] Semester)

Pharmacological and Toxicological Screening Methods-I CODE-

Subject Code: MPL-103T

[Time : 3:00 Hours] **[Max. Marks : 75]**

Note: Attempt all questions. Each questions carry equal marks.

Q1. Attempt any five questions **[5×3=15]**

a. Give a short note on importance of Nude mouse

b. Explain various techniques involved in breeding of laboratory animals.

c. Add a note on anesthetics used in laboratory of experimental animals.

d. Discuss any two *in-vivo* screening methods for anti-inflammatory agents.

e. What is biological assay?

f. Write a note onGoldblat technique.

g. Write the pharmacological screening methods of anti-emetic drugs.

Q2. Attempt any five questions **[5×3=15]**

a. Write the pharmacological screening methods of anti-hypertensive drugs.

b. Write the screening methods of CNS stimulants.

c. Describe any two animal models to screen hepatoprotective activity of a molecule.

d. Give any two *in-vivo* pharmacological screening methods for anti-asthmatic drugs?

e. Explain any two in-vivo methods for the preclinical screening of anti-emetics.

f. What are transgenic animals? Give the name of various techniques used to produce transgenic animals.

g. Write a short note on nude mouse.

Q3. Attempt any two questions **[2X7.5=15]**

a. Discuss in detail about preclinical screening of the Anti-cancer agents using in vivo models.

b. Define bioassay Define bioassay. Write a note on basic principles of biological standardization with an example.

c. Explain in-vitro and in-vivo screening methods for immunomodulators.

Q4. Attempt any two questions **[2X7.5=15]**

a. Describe the various preclinical screening methods of Parkinson's drugs.

b. What is CPCSEA? Discuss its functions and guidelines for use of laboratory animals.

c. Discuss different methods used for the screening of antihypertensive agents.

Q5. Attempt any one question **[1X15=15]**

a. Discuss different methods used for the screening of anti-epileptic agents

b. Write an exhaustive note on preclinical screening of drugs for Alzheimer.

24/12/2022

Printing Pages :1

Paper Code :-MPL-104T C (SVSU:2022-23/R)

Enrollment No.													

M.PHARM

Ist Year (IST Semester)

Subject: Cellular and Molecular Pharmacology

Subject Code: MPL-104T

[Time : 3:00 Hours] **[Max. Marks : 75]**

Note: Attempt all questions. Each questions carry equal marks.

Q1. Attempt any five questions **[5×3=15]**

a. Describe gene expression?

b. Give a brief on methods of gene delivery.

c. What are secondary messengers?

d. What is gene mapping?

e. What is nutrigenomics?

f. Discuss cell cycle in brief.

Q2. Attempt any five questions **[5×3=15]**

a. Describe gene sequencing as a short note.

b. Write the applications of siRNA and miRNA.

c. Elaborate cell cycle check points.

d. Discuss the applications of metabolomics.

e. Write in brief about vectors used in recombinant DNA technology.

f. Write in brief about vectors used in gene therapy.

Q3. Attempt any two questions **[2X7.5=15]**

d) Give the principle and applications of DNA electrophoresis

e) Describe in detail about intrinsic and extrinsic pathway of apoptos

f) Write are the principle and applications of western blotting techniques.

Q4. Attempt any two questions **[2X7.5=15]**

a) Give a detailed note on ELISA.

b) Elaborateprinciple and applications of DNA microarray.

c) Enlist secondary messengers. Give an account of cAMP.

Q5. Attempt any one question **[1X15=15]**

c) Discuss in detailed about principle and applications of recombinant DNA technology.

d) Classify receptors. Write in detail about G-protein coupled receptors.